

SUMMARY

A fluctuation characteristic of registration between images printed by individual printing units (4A, 4B, 4C, 4D) while changing print speed is predicted for each of particular printing conditions that affect the registration fluctuation characteristic. Based on the predicted fluctuation characteristic of registration, a control characteristic of the phase between plate cylinders (5, 5, 5, 5) of the individual printing units (4A, 4B, 4C, 4D) is preliminarily set so as to compensate for vertical image misregistration between images printed by the individual printing units (4A, 4B, 4C, 4D), and is stored in a database (32). Then, when the print speed is being changed, from among the plural phase control characteristics thus preliminarily stored in the database (32), a phase control characteristic that corresponds to a printing condition concerning the current printing is selected, and the phase relation between the plate cylinders (5, 5, 5, 5) of the individual printing units (4A, 4B, 4C, 4D) is being modified according to the selected phase control characteristic. Thereby vertical image misregistration can be suppressed and the occurrence of brokes due to the change of print speed can be prevented.